



Veterans Affairs: Health Care and Benefits for Veterans Exposed to Agent Orange

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Summary

Since the 1970s, Vietnam-era veterans have attributed certain medical illnesses, disabilities, and birth defects to exposure to Agent Orange and other herbicides sprayed by the U.S. Air Force to destroy enemy crops and remove forest cover. During the last 30 years, Agent Orange legislation has established and updated the health and disability benefits of Vietnam veterans exposed to herbicides.

Several laws were enacted by Congress to provide health care services to Vietnam veterans. The Veterans' Health Care, Training and Small Business Loan Act (P.L. 97-72) elevated Vietnam veterans' priority status for health care at Department of Veterans Affairs facilities by recognizing a veteran's own report of exposure as sufficient proof to receive medical care unless there was evidence to the contrary. The Veterans' Health Care Eligibility Reform Act of 1996 (P.L. 104-262) completely restructured the VA medical care eligibility requirements for all veterans. Under P.L. 104-262, a veteran does not have to demonstrate a link between a certain health condition and exposure to Agent Orange; instead, medical care is provided unless the VA has determined that the condition did not result from exposure to Agent Orange.

Likewise, Congress passed several measures to address disability compensation issues of Vietnam veterans. The Veterans' Dioxin and Radiation Exposure Compensation Standards Act of 1984 (P.L. 98-542) required the VA to develop regulations for disability compensation to Vietnam veterans exposed to Agent Orange. In 1991, the Agent Orange Act (P.L. 102-4) established for the first time a process for establishing presumption of service connection for diseases associated with herbicide exposure. P.L. 102-4 authorized the VA to contract with the Institute of Medicine (IOM) to conduct scientific reviews of the evidence linking certain medical conditions to herbicide exposure. Under this law, the VA is required to review the reports of the IOM and issue regulations, establishing a presumption of service connection for any disease for which there is scientific evidence of a positive association with herbicide exposure. Based on these IOM reports, currently 14 health conditions are presumptively service-connected, including B-cell leukemias, Parkinson's disease, and ischemic heart disease.

Navy veterans of the Vietnam Era (those who served in Vietnam between January 9, 1962, and May 7, 1975), who served offshore and were never physically present on Vietnamese soil, have been contesting the presumption of service connection for Agent Orange disability benefits. In 2006, the U.S. Court of Appeals for Veterans Claims (CAVC) ruled in *Haas v. Nicholson* that navy veterans who served offshore during the Vietnam Era were entitled to a presumption of exposure to Agent Orange. On May 8, 2008, the U.S. Court of Appeals for the Federal Circuit ("the court") issued a decision reversing the CAVC's decision. On June 23, 2008, the attorneys for Haas filed a petition with the court for a panel rehearing or a rehearing en banc (that is, the whole panel of judges of the court). On October 9, 2008, the court denied the petition. Following this action, Haas petitioned the U.S. Supreme Court for certiorari (asking the Supreme Court to review the decision of a lower court). On January 21, 2009, the Supreme Court denied the petition for writ of certiorari. A subsequent related proceeding, *Haas v. Shinseki*, on remand from the court, involved the same plaintiff and the same factual situation. On March 10, 2009, the court examined the BVA's decision, vacated that decision, and remanded the claim for further proceedings with the BVA. The Agent Orange Equity Act of 2009 (H.R. 2254), if enacted, would clarify service in Vietnam to include inland waterways, the waters offshore, and airspace above Vietnam. Under H.R. 2254, those who have been awarded the Vietnam Service Medal or the Vietnam Campaign Medal would also be eligible for disability compensation based on presumptive disease conditions relating to exposure to Agent Orange.

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Background

Between 1962 and 1971, the U.S. Air Force sprayed approximately 107 million pounds of herbicides in South Vietnam for the purpose of defoliation and crop destruction. The herbicides sprayed during the Vietnam era contained mixtures of 2,4-dichlorophenoxyacetic acid (2,4-D), 2,4,5-trichlorophenoxyacetic acid (2,4,5-T), picloram, and cacodylic acid. The most extensively used defoliant compound, a 50:50 combination of 2,4-D and 2,4,5-T, came to be known as “Agent Orange” because of the orange-colored band placed on each chemical storage container. One of the chemicals used in Agent Orange, 2,4,5-T, contained small amounts of dioxin. Other herbicides employed in Vietnam such as “Agent Purple” and “Agent Green” also were contaminated with dioxin. Collectively, these compounds were referred to as the “rainbow defoliants.” The late 1960s saw a decline in the use of these herbicides when dioxin, already well known to be highly toxic in animals, was implicated in birth defects seen in mice. By 1969, spraying was restricted to remote areas, and by 1971, the Air Force ceased all spraying of Agent Orange.

Since the late 1970s, Vietnam-era veterans have voiced concerns about how exposure to Agent Orange may have affected their health and caused certain disabilities, including birth defects in their children. Initially, the Department of Defense (DOD) maintained that only a limited number of U.S. military personnel, such as those operating aircraft or troops engaged in herbicide spraying, could be positively linked to Agent Orange exposure. However, in 1979, the General Accounting Office, now the Government Accountability Office (GAO), reported that ground troops had also been exposed to Agent Orange, and DOD was forced to reconsider its prior statements.¹ In response to these concerns, Congress passed legislation to research the long-term health effects on Vietnam veterans and to provide benefits and services to those who may have been exposed to Agent Orange.²

This report provides an overview of health care services and disability compensation benefits available to Vietnam veterans, Children of Vietnam Era veterans, and non-Vietnam veterans exposed to herbicides. This is followed by a discussion of litigation pertaining to Navy veterans of the Vietnam Era who served offshore and were never physically present on Vietnamese soil. The report concludes with a discussion of epidemiologic research conducted to study the health effects of Agent Orange and dioxin exposure on Vietnam veterans.

Health Care

Prior to the 1981 Veterans’ Health Care, Training and Small Business Loan Act (P.L. 97-72), veterans who complained of Agent Orange-related illnesses were generally at the lowest priority for treatment at Department of Veterans Affairs (VA) medical facilities because these conditions were not considered “service-connected.”³ P.L. 97-72 elevated Vietnam veterans’ priority status

¹ U.S. General Accounting Office, *Ground Troops in South Vietnam Were in Areas Sprayed with Herbicide Orange*, GAO 80-23, November 1979, p. 1.

² For a more in-depth discussion of the legislative history related to Agent Orange see CRS Report R41405, *Veterans Affairs: Presumptive Service Connection and Disability Compensation*, coordinated by Sidath Viranga Panangala.

³ The term “service-connected” means, with respect to disability, that such disability was incurred or aggravated in the line of duty in the active military, naval, or air service (38 U.S.C. § 101). VA determines whether veterans have service-connected disabilities and, for those with such disabilities, assigns ratings from 0% to 100% based on the (continued...)

for health care at VA facilities by recognizing a veteran's own report of exposure as sufficient proof to receive medical care unless there was evidence to the contrary. The Veterans' Health Care Eligibility Reform Act of 1996 (P.L. 104-262) completely restructured the VA medical care eligibility requirements for all veterans. Under P.L. 104-262, a veteran does not have to demonstrate a link between a certain health condition and exposure to Agent Orange; instead, medical care is provided unless the VA has determined that the condition did not result from exposure to Agent Orange or the condition has been identified by the Institute of Medicine (IOM) as having "limited/suggestive" evidence of *no* association between the occurrence of the disease and exposure to a herbicide.⁴ The research by the IOM (part of the National Academies) and its significance is addressed later in this report.⁵

Presumption of Service Connection

Prior to discussing disability compensation for exposure to Agent Orange, it is essential to provide a brief overview of presumptive service connection. In general, a veteran is entitled to compensation for disabilities incurred during active military service. There are several ways to establish that a disability is service-connected. The application of statutory presumptions is only one way to invoke compensation for a service-connected disability.⁶ In the context of VA claims adjudication, a presumption could be seen as a procedure to relieve veterans of the burden to prove that a disability or illness was caused by a specific exposure that occurred during service in the Armed Forces. In other words, the onus is placed on the VA rather than the veteran. Most presumptions are applied to chronic disease or illnesses that manifest after a period of time following service.⁷

Disability Compensation

The Veterans' Dioxin and Radiation Exposure Compensation Standards Act of 1984 (P.L. 98-542) required the VA to develop regulations for disability compensation to Vietnam veterans who may have been exposed to Agent Orange. Veterans seeking compensation for a condition they thought

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severity of the disability. Percentages are assigned in increments of 10%.

⁴ "Limited/suggestive" evidence of no association is when several adequate studies, covering the full range of levels of exposure that human beings are known to encounter, are consistent in not showing a positive association between any magnitude of exposure to herbicides and the outcome of disease.

⁵ For detailed information on eligibility for VA health care, see CRS Report R41343, *Veterans Medical Care: FY2011 Appropriations*, by Sidath Viranga Panangala.

⁶ 38 C.F.R. § 3.307. The other methods of establishing service connection include through direct service connection—that is, the facts, shown by evidence, establish that a particular injury or disease resulting in a disability was incurred while in service in the Armed Forces (38 C.F.R. § 3.303); through aggravation during service—that is, a preexisting injury or disease will be considered to have been aggravated while in service in the Armed Forces (38 C.F.R. § 3.306); through proximity—that is, a disability, which is proximately due to, or the result of a service-connected disease or injury which is considered to be service-connected (38 C.F.R. § 3.310). For example, a veteran developing cardiovascular disease due to a service-connected amputation of a lower limb; and through a finding, the disability was caused by medical care or vocational rehabilitation provided by the VA—disabilities caused by VA provided medical care or vocational rehabilitation are treated as if they are service-connected (38 U.S.C. § 1151).

⁷ For a detailed discussion of presumption of service connection, see CRS Report R41405, *Veterans Affairs: Presumptive Service Connection and Disability Compensation*, coordinated by Sidath Viranga Panangala.

to be related to herbicide exposure had to provide proof of a service connection that established the link between herbicide exposure and disease onset. P.L. 98-542 authorized disability compensation payments to Vietnam veterans for the skin condition chloracne, which is associated with herbicide exposure. In 1991, the Agent Orange Act (P.L. 102-4) established for the first time a process for establishing presumption of service connection for diseases associated with herbicide exposure. P.L. 102-4 authorized the VA to contract with the IOM to review and summarize the scientific evidence concerning the association between exposure to herbicides used in support of military operations in Vietnam during the Vietnam Era and each disease suspected to be associated with such exposure. P.L. 102-4 mandated that IOM determine, to the extent possible: (1) whether there is a statistical association between the suspect diseases and herbicide exposure, taking into account the strength of the scientific evidence and the appropriateness of the methods used to detect the association; (2) the increased risk of disease among individuals exposed to herbicides during service in Vietnam during the Vietnam Era; and (3) whether there is a plausible biological mechanism or other evidence of a causal relationship between herbicide exposure and the health outcome.⁸ The VA is then required to review the reports of the IOM and issue regulations, establishing a presumption of service connection for any disease for which there is scientific evidence of a positive association with herbicide exposure. Once the VA has established presumption of service connection for a certain disease or medical condition, a Vietnam veteran with that disease is eligible for disability compensation. The amount of compensation is based on the degree of disability and, again, veterans are compensated only for approved conditions that have demonstrated sufficient evidence of an association with herbicide exposure.⁹ The next three sections provide information on diseases that are currently presumptively service-connected for Agent Orange, diseases that have not been recognized as presumptively service-connected, and benefits available for children of Vietnam-era veterans.

Diseases Associated with Exposure to Certain Herbicide Agents

Currently, the conditions that are presumptively recognized for service connection for Vietnam veterans are chloracne (must occur within one year of exposure to Agent Orange); non-Hodgkin's lymphoma; soft tissue sarcoma (other than osteosarcoma, chondrosarcoma, Kaposi's sarcoma, or mesothelioma); Hodgkin's disease; porphyria cutanea tarda (must occur within one year of exposure); multiple myeloma; respiratory cancers, including cancers of the lung, larynx, trachea, and bronchus; prostate cancer; acute and subacute transient peripheral neuropathy (must appear within one year of exposure and resolve within two years of date of onset); type II diabetes; chronic lymphocytic leukemia (CLL);¹⁰ amyotrophic lateral sclerosis (ALS);¹¹ and AL amyloidosis.¹²

⁸ This comprehensive review by the IOM has been repeated at least every two years since 1994 and is authorized to continue until October 2014. *Veterans and Agent Orange* weighs the strengths and limitations of the complete body of epidemiologic evidence on herbicide exposure and manifestation of certain health outcomes. This review then assigns the investigated medical conditions to one of four categories ranging from "sufficient evidence of an association" to "limited or suggestive evidence of no association." For example, in the 2008 *Veterans and Agent Orange* update, this information is available in Table S-1. The latest update was compiled in 2008 and released in July 2009, available at <http://www.nap.edu/>.

⁹ For a detailed discussion of the process for establishing presumption of service connection see CRS Report R41405, *Veterans Affairs: Presumptive Service Connection and Disability Compensation*, coordinated by Sidath Viranga Panangala.

¹⁰ 38.C.F.R. § 3.309(e). In 2003, based on the 2002 update of the IOM report *Veterans and Agent Orange*, the VA issued a regulation designating chronic lymphocytic leukemia ("CLL") and other medical conditions as diseases associated with dioxin. CLL was therefore to be considered "service connected." However, the VA did not re-(continued...)

Recent Additions to the List of Presumptive Disease Conditions

On October 13, 2009, the VA issued a press release stating that it would establish a presumptive service connection for three specific illnesses based on the IOM report *Veterans and Agent Orange: Update 2008*.¹³ The illnesses affected by the VA decision are B-cell leukemias, such as hairy cell leukemia; Parkinson's disease; and ischemic heart disease.¹⁴ On March 25, 2010, the VA issued proposed regulations¹⁵ establishing these presumptions, and final regulations were issued on August 31, 2010.¹⁶

The Congressional Review Act and the New Presumptive Disease Conditions¹⁷

Although final rules were issued on August 31, section 902 of the Supplemental Appropriations Act, 2010 (P.L. 111-212) contained a provision limiting the VA from spending any funds provided in P.L. 111-212, on disability compensation for veterans exposed to Agent Orange and diagnosed with hairy cell leukemia and other chronic B cell leukemias, Parkinson's disease, and ischemic heart disease, until the expiration of the congressional review period under the Congressional Review Act (CRA, 5 U.S.C. 801-808).

The CRA requires federal agencies to submit all of their final rules to both houses of Congress and the Government Accountability Office before they can take effect. The act requires that the effective date of "major" rules (e.g., those with at least a \$100 million annual effect on the economy) be delayed for 60 calendar days after the date they are submitted to Congress or published in the Federal Register, whichever is later. Although this provision was intended to give Congress an opportunity to disapprove these major rules before they take effect, Congress can use the CRA to disapprove rules even after they have taken effect.

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adjudicate prior claims for CLL, nor did it pay retroactive benefits, arguing that compensation was not applicable to diseases determined to be service-connected after September 20, 2002, the original sunset date of the Agent Orange Act of 1991. Following extensive litigation, the U.S. Court of Appeals for the Ninth Circuit (*Nehmer v. VA*, 494 F.3d 846 (9th Cir. Cal. 2007)) affirmed the district court decision (*Nehmer v. VA*, 32 F.Supp. 2d 1175 (N.D. Cal. 1999)) and, in effect, confirmed that the VA was obligated to pay disability benefits to all "Agent Orange" veterans with CLL, including those diagnosed after September 20, 2002.

¹¹ Department of Veterans Affairs, "Presumption of Service Connection for Amyotrophic Lateral Sclerosis," 73 *Federal Register* 54691-54693, September 23, 2008. It should be noted that this presumptive condition is *not* limited to veterans who were potentially exposed to Agent Orange. To be eligible for this presumptive service connection, a veteran must have served on continuous active duty for a period of 90 days or more.

¹² Department of Veterans Affairs, "Presumptive Service Connection for Disease Associated With Exposure to Certain Herbicide Agents: AL Amyloidosis," 74 *Federal Register* 21258-21260, May 7, 2009.

¹³ National Academy of Sciences, Institute of Medicine, *Veterans and Agent Orange: Update 2008*, Washington, DC, 2009.

¹⁴ Department of Veterans Affairs, "VA Extends 'Agent Orange' Benefits to More Veterans, Parkinson's Disease Two Other Illnesses Recognized," press release, October 13, 2009.

¹⁵ Department of Veterans Affairs, "Diseases Associated With Exposure to Certain Herbicide Agents (Hairy Cell Leukemia and Other Chronic B Cell Leukemias, Parkinson's Disease and Ischemic Heart Disease)," 75 *Federal Register* 14391-14401, March 25, 2010.

¹⁶ Department of Veterans Affairs, "Diseases Associated With Exposure to Certain Herbicide Agents (Hairy Cell Leukemia and Other Chronic B-Cell Leukemias, Parkinson's Disease and Ischemic Heart Disease)," 75 *Federal Register* 53202-53216, August 31, 2010.

¹⁷ Curtis W. Copeland, Specialist in American National Government, made contributions to this section.

Section 802(a) of the CRA states that a Member of Congress can introduce a resolution of disapproval for any rule starting on the date that the rule is submitted to Congress, and ending no more than 60 “days of continuous session” after that date (i.e., excluding calendar days that either House of Congress is adjourned for more than three days). Section 802(e) states that the Senate has 60 “session days” (i.e., counting only days on which the Senate is in session) from the date the rule is submitted or published in the Federal Register to use expedited procedures to disapprove the rule. However, Section 801(d) of the CRA states that if Congress adjourns its annual session *sine die*¹⁸ less than 60 “legislative days” (in the House of Representatives) or “session days” (in the Senate) after a rule is submitted to it, then the rule is carried over to the next session of Congress and treated as if it was submitted on the 15th legislative or session day of that session of Congress. At that point, the Members have a fresh 60 “days of continuous session” to introduce resolutions of disapproval.¹⁹

Diseases Not Associated with Exposure to Certain Herbicide Agents

The Agent Orange Act of 1991 (P.L. 102-4) also mandated the VA to publish a notice when the VA determines that a presumption of service connection is not warranted. On June 8, 2010, based on the 2006 IOM report on Agent Orange, the VA issued a notice that a presumption of service connection is *not* warranted based on exposure to herbicides used in Vietnam during the Vietnam Era for the following medical conditions: cancers of the oral cavity (including lips and tongue), pharynx (including tonsils), or nasal cavity (including ears and sinuses); cancers of the pleura, mediastinum, and other unspecified sites within the respiratory system and intrathoracic organs; esophageal cancer; stomach cancer; colorectal cancer (including small intestine and anus); hepatobiliary cancers (liver, gallbladder and bile ducts); pancreatic cancer; bone and joint cancer; melanoma; non-melanoma skin cancer (basal cell and squamous cell); breast cancer; cancers of reproductive organs (cervix, uterus, ovary, testes, and penis; excluding prostate); urinary bladder cancer; renal cancer; cancers of brain and nervous system (including eye); endocrine cancers (thyroid, thymus, and other endocrine); leukemia (other than chronic lymphocytic leukemia (CLL) and B-cell leukemias such as hairy cell leukemia); cancers at other and unspecified sites; neurobehavioral disorders (cognitive and neuropsychiatric); movement disorders (other than amyotrophic lateral sclerosis (ALS) and Parkinson’s disease; chronic peripheral nervous system disorders; respiratory disorders; gastrointestinal, metabolic, and digestive disorders (changes in liver enzymes, lipid abnormalities, and ulcers); immune system disorders (immune suppression, allergy, and autoimmunity); circulatory disorders (including hypertension); endometriosis; effects on thyroid homeostasis; certain reproductive effects, i.e., infertility, spontaneous abortion, neonatal or infant death and stillbirth in offspring of exposed people, low birth weight in offspring of exposed people, birth defects (other than spina bifida) in offspring of exposed people, childhood cancer (including acute myelogenous leukemia) in offspring of exposed people; and any other condition for which the VA has not specifically determined a presumption of service connection is warranted.²⁰

¹⁸ The Latin phrase, literally translated as “without day,” is used to mean that Congress has adjourned without setting a day for its next meeting. An adjournment *sine die*, therefore, means that Congress is not scheduled to meet again until the day set by the Constitution (or by law) for its next session to convene.

¹⁹ For more information, see CRS Report RL34633, *Congressional Review Act: Disapproval of Rules in a Subsequent Session of Congress*, by Curtis W. Copeland and Richard S. Beth.

²⁰ U.S. Department of Veterans Affairs, “Health Effects Not Associated With Exposure to Certain Herbicide Agents.” (continued...)

Children of Vietnam-Era Veterans

Spina Bifida Health Care Program

Vietnam veterans' (both male and female Vietnam veterans) children with the birth defect spina bifida are eligible to receive health care services through the VA (also see "Herbicide Exposure and Veterans Service in Korea").²¹ For the purposes of this program spina bifida is defined as all forms or manifestations of spina bifida (except spina bifida occulta). To be eligible to receive health care, the beneficiary must be eligible to receive a monthly monetary allowance. The VA assumes full responsibility for the cost of medical services for the treatment of spina bifida beneficiaries' care, and VA directly reimburses the providers. Generally, care is provided in the private sector, and in some instances, services may also be obtained from VA health care facilities on a space available basis.

The Veterans' Mental Health and Other Care Improvements Act of 2008 (P.L. 110-387) authorized the VA to furnish comprehensive health care services to beneficiaries born with spina bifida. Prior to the enactment of P.L. 110-387, health care services to children born with spina bifida were limited to only health care that was needed to treat spina bifida and associated conditions. This program now covers comprehensive health care that is considered medically necessary and appropriate.

The Children of Women Vietnam Veterans (CWVV) Health Care Program

The Veterans Benefits and Health Care Improvement Act of 2000 (P.L. 106-419) authorized benefits and services for children with certain birth defects who were born to female Vietnam veterans.²² However, if a birth defect is determined to be familial in a particular family, is a birth-related injury, or is a fetal or neonatal infirmity with well-established causes, it will not be a covered birth defect.

The Agent Orange Registry

The Agent Orange Registry was established in 1978 by the VA for Vietnam veterans concerned about the health effects of exposure to Agent Orange. A veteran choosing to register is eligible for an examination consisting of a medical history, a physical examination, and a series of laboratory

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75 Federal Register 32540-32553, June 8, 2010.

²¹ A birth child of a Vietnam veteran, regardless of age or marital status, who was conceived after the date on which the Vietnam veteran first entered the Republic of Vietnam, during the period beginning January 9, 1962, and ending May 7, 1975, or a birth child of a Korea veteran, regardless of age or marital status, who was conceived after the date on which the Korea veteran first served in or near the Korean demilitarized zone, during the period beginning September 1, 1967, and ending August 31, 1971.

²² Covered birth defects include but are not limited to the following: (1) Achondroplasia; (2) Cleft lip and cleft palate; (3) Congenital heart disease; (4) Congenital talipes equinovarus (clubfoot); (5) Esophageal and intestinal atresia; (6) Hallerman-Streiff syndrome; (7) Hip dysplasia; (8) Hirschprung's disease (congenital megacolon); (9) Hydrocephalus due to aqueductal stenosis; (10) Hypospadias; (11) Imperforate anus; (12) Neural tube defects (including spina bifida, encephalocele, and anencephaly); (13) Poland syndrome; (14) Pyloric stenosis; (15) Syndactyly (fused digits); (16) Tracheoesophageal fistula; (17) Undescended testicle; and (18) Williams syndrome (38 C.F.R. § 3.815).

tests. Each veteran is also required to answer a set of questions relevant to exposure. In September 2000, the Agent Orange Registry was expanded to include veterans who served in Korea in 1968 and 1969. Since August 2001, the registry is accessible to all U.S. veterans potentially exposed to dioxin or other toxic substances used in herbicides while engaged in military activity. Participating in the registry does not give exposed military personnel automatic access to health and disability compensation benefits. As of March 2010, more than 559,000 veterans have participated in the registry.²³

Non-Vietnam Veterans Exposed to Agent Orange

Under current law, only Vietnam veterans who served in-country are eligible to receive health care benefits and compensation for service “in Vietnam.”²⁴ However, under certain circumstances, veterans are eligible for health care and compensation benefits for service outside of Vietnam. A non-Vietnam veteran who claims that an injury or illness resulted from exposure to Agent Orange while serving in the military can apply for service-connected benefits. But unlike Vietnam veterans, non-Vietnam veterans are required to prove they were exposed to Agent Orange. The VA requires the following information in the veteran’s benefit application: a medical diagnosis of a disease or condition the VA recognizes as associated with Agent Orange; evidence of exposure to a chemical contained in the herbicides used in Vietnam; and medical evidence that the disease began or manifested within the designated time frame, if any, for that disease.²⁵ The DOD has also published a list of areas outside of Vietnam where Agent Orange was used as well as a list of specific areas within the continental U.S. and U.S. territories.²⁶

Herbicide Exposure and Veterans Service in Korea

In 2003, Congress passed the Veterans Benefits Act of 2003 (P.L. 108-183).²⁷ Among other things, section 102 of the Act expanded benefits (health care, monetary allowance, vocational training, and education) for children born with spina bifida of certain veterans who served in Korea.²⁸ To be eligible for benefits, the veteran must have served in the active military, naval, or air service in or near the Korean Demilitarized Zone (DMZ) between September 1, 1967, and August 31, 1971. Furthermore, even if a veteran served in or near the DMZ within the specified

²³ There were a total of 502,056 initial examinations, and 57,353 follow-up examinations; see, <http://www.publichealth.va.gov/docs/agentorange/reviews/agentorange-newsletter-jul10.pdf>.

²⁴ Service in the Republic of Vietnam includes service in the waters offshore and services in other locations if conditions of service involved duty or visitation in the Republic of Vietnam.(38 C.F.R. §3.313(a); 38 C.F.R. 3.307(a)(6)(iii)).

²⁵ If a veteran did not serve in the Republic of Vietnam, but was exposed to an herbicide agent defined in 38 C.F.R. 3.307(a)(6) during active military service, has a disease on the list of diseases subject to presumptive service connection, VA will presume that the disease is due to the exposure to herbicides. Additional information on benefits and compensation for veterans exposed to Agent Orange is available at the U.S. Department of Veterans Affairs, “VA’s Guide on Agent Orange Claims, Compensation and Pension Service,” updated April 27, 2004, pp. 1-7, at <http://www.vba.va.gov/bln/21/Benefits/Herbicide/AOno3.htm>.

²⁶ For a detailed list of sites within and outside the U.S., see http://www.publichealth.va.gov/exposures/agentorange/outside_vietnam.asp.

²⁷ P.L. 108-183, among other the bills, contained provisions from H.R. 2297 (H.Rept. 108-211) and S. 1132 (S.Rept. 108-169).

²⁸ This applies to all forms and manifestations of spina bifida, except spina bifida occulta.

time period, P.L. 108-183 requires the VA in consultation with the DOD to determine whether the veteran was exposed to herbicides during such service.²⁹ However, current law does not establish a presumption of herbicide exposure based on service in or near the Korean DMZ. In July 2009, the VA proposed regulations to establish a presumption of exposure to herbicide to any veteran who served between April 1968 and July 1969 in a unit determined by the VA and the DOD to have operated in an area in or near the Korean DMZ in which herbicides were applied.³⁰ However, according to the proposed regulations, if a veteran served in or near the Korean DMZ during the period between September 1, 1967, and August 31, 1971, but not within the time periods (April 1968 and July 1969) and geographic locations that would qualify for a presumption of exposure under this proposed rule, such service would qualify for benefits only if the VA determines that the veteran was actually exposed to herbicides during such service.³¹

Haas v. Peake³² (Previously Haas v. Nicholson)³³

Haas v. Nicholson

On August 16, 2006, the U.S. Court of Appeals for Veterans Claims (CAVC) determined that the veterans who had served in the waters off Vietnam (this class of veterans is generally known as “blue water” veterans) were entitled to a presumption of exposure to Agent Orange.³⁴ Prior to this CAVC decision,³⁵ the VA’s interpretation of 38 CFR 3.307(a)(6)(iii) was that a service member had to have actually set foot on Vietnamese soil or served on a craft in its rivers (also known as “brown water” veterans) in order to be entitled to the presumption of exposure to Agent Orange. The CAVC specifically held the following: (1) the reference to service “in Vietnam” as used in the statute was ambiguous because there are many definitions of the territory of a nation, and (2) the VA’s regulation defining Vietnam service for purposes of granting the presumption of exposure to herbicides, 38 CFR 3.307(a)(6)(iii), was ambiguous when viewed together with 38 CFR 3.313, which also defines service in Vietnam. Because the CAVC determined that ambiguity was present, it also examined the VA’s Adjudication Procedure Manual M21-1 (the M21-1

²⁹ 38 U.S.C. § 1821. Furthermore, the DOD has advised VA that herbicides were not applied within the DMZ, but were applied in some adjacent areas. Specifically, the DOD has reported that herbicides were applied between April 1968 and July 1969 along a strip of land 151 miles long and up to 350 yards wide along the southern edge of the DMZ north of the civilian control line. The herbicide agents were applied through hand spraying and hand distribution of pelletized herbicides. According to the DOD, there was no aerial spraying. The DOD also has provided the VA a list of the military units that are currently known to have operated in that area during the period that herbicides were applied [see U.S. Department of Veterans Affairs, “Herbicide Exposure and Veterans With Covered Service in Korea,” 74 *Federal Register* 36640-36648, July 24, 2009].

³⁰ U.S. Department of Veterans Affairs, “Herbicide Exposure and Veterans With Covered Service in Korea,” 74 *Federal Register* 36640-36648, July 24, 2009.

³¹ Ibid.

³² 525 F.3d 1168 (Fed. Cir. 2008).

³³ 20 Vet. App. 257 (2006). Jonathan L. Haas was a member of the U.S. Navy Reserve components that served in the waters off Vietnam and received the Vietnam Service Medal (VSM). He claimed that his diabetes mellitus and resulting medical complications were related to his exposure to Agent Orange that drifted offshore, and filed a disability claim with the VA. The VA denied the claim on the grounds that servicemembers had to have actually set foot on Vietnamese soil in order to be eligible for benefits.

³⁴ For further information on the CAVC, see CRS Report RS22561, *Veterans Affairs: The U.S. Court of Appeals for Veterans Claims—Judicial Review of VA Decision Making*, by Douglas Reid Weimer.

³⁵ U.S. Court of Appeals for Veterans Claims (CAVC), 20 Vet. App. 257 (2006).

manual)³⁶ provision from 1991, which stated that the receipt of a Vietnam Service Medal (VSM) would be considered proof of Vietnam service in the absence of “contradictory evidence.” In 2002, the VA issued a new M21-1 provision advising VA benefit adjudicators that the receipt of the VSM could indicate service on land in Vietnam but, by itself, was not proof of service in Vietnam because a veteran may have received this medal for service in locations other than Vietnam.³⁷ The CAVC determined the M21-1 provision to be a substantive rule establishing entitlement to the presumption of exposure to herbicides, and held that the VA’s “attempted rescissions” of that M21-1 provision were void because they failed to comply with the notice and comment requirements of the Administrative Procedures Act (APA).³⁸

Subsequent Actions

On September 21, 2006, Secretary Nicholson issued a memorandum directing the Board of Veterans Appeals (BVA) to withhold adjudicating all service-connected claims based on exposure to herbicides in which the only evidence of exposure is the receipt of the Vietnam Service Medal or service on a vessel off the shore of Vietnam.³⁹ On December 11, 2006, the VA issued a memorandum to its regional offices, instructing them that claims related to *Haas v. Nicholson* should not be adjudicated until the litigation is resolved. As a result, at this time, the BVA has suspended action on *Haas v. Nicholson* claims.⁴⁰

The VA appealed the CAVC decision to the U.S. Court of Appeals for the Federal Circuit in Washington, D.C. Oral argument was held on November 7, 2007.

On November 27, 2007, the VA published a *Federal Register* notice proposing to rescind provisions of its Adjudication Procedures Manual, M21-1 (M21-1), that were found by the CAVC not to have been properly rescinded under the APA.⁴¹ This action was taken by the VA as a preemptive measure in the event the Department did not prevail on appeal in *Haas v. Nicholson*.

Haas v. Peake

Haas v. Peake is the case name on appeal of the previously discussed *Haas v. Nicholson*. On May 8, 2008, the U.S. Court of Appeals for the Federal Circuit (“court”) issued a decision reversing the prior CAVC ruling. The court concluded that the VA’s interpretation of “service in Vietnam” as requiring the servicemember’s presence at some point on the landmass or the inland waters of

³⁶ The M21-1 is an internal manual used to provide guidance to VA benefit adjudicators on procedures for adjudicating claims for compensation, pension, dependency and indemnity compensation, accrued benefits, and burial allowance.

³⁷ The VSM was awarded to all members of the Armed Forces who served between July 3, 1965, and March 28, 1973, either (1) in Vietnam and contiguous waters and airspace thereover, or (2) in Thailand, Laos, or Cambodia, or airspace thereover, in direct support of operations in Vietnam. See <http://www.history.navy.mil/medals/vsn.htm>.

³⁸ 5 U.S.C. § 706(2)(A).

³⁹ Memorandum No. 01-06-24 Subj. Processing of claims for compensation on exposure to herbicides affected by *Haas. v. Nicholson*-imposition of stay. See <http://vets.yuku.com/topic/4439/t/HAAS-v-NICHOLSON-IMPOSITION-OF-STAY.html>.

⁴⁰ For further details on the BVA, see CRS Report RL33704, *Veterans Affairs: The Appeal Process for Veterans’ Claims*, by Douglas Reid Weimer.

⁴¹ Department of Veterans Affairs, “Rescission of Manual M21-1 Provisions Related To Exposure to Herbicides Based on Receipt of the Vietnam Service Medal,” 72 *Federal Register* 66218-66219, November 27, 2007.

Vietnam was based on a permissible construction of the statute.⁴² The court also stated in its opinion that “Mr. Haas is free to pursue his claim that he was actually exposed to herbicides while on board his ship as it traveled near the Vietnamese coast.”⁴³ However, according to the court’s opinion, he is not entitled to the benefit of a presumption related to Agent Orange exposure.⁴⁴

On June 23, 2008, the attorneys for Haas filed a petition with the court for a panel rehearing or a rehearing en banc (that is, the whole panel of judges of the court).⁴⁵ On October 9, 2008, the court denied the petition for rehearing.⁴⁶ Following this action, Haas petitioned the U.S. Supreme Court for certiorari.⁴⁷ On January 21, 2009, the Supreme Court denied the petition for writ of certiorari.⁴⁸

Subsequent Actions

There was a subsequent related proceeding, *Haas v. Shinseki*,⁴⁹ on remand from the U.S. Court of Appeals for the Federal Circuit (“the court”), which involved the same plaintiff and the same factual situation. On March 10, 2009, the court vacated the BVA’s decision and remanded the claim for further proceedings with the BVA. The effect of this decision is that the veteran was given an opportunity to prove his claim to service-connected benefits for his condition, on the basis of medical and factual evidence.⁵⁰ The BVA will reexamine the case and determine whether Haas has a compensable service-connected disability, based on the medical and evidentiary records that Haas presents.

Blue Water Navy Vietnam Veterans and Agent Orange Exposure Study

In late 2009, the VA asked the IOM to conduct a study and prepare a report on whether Vietnam veterans who served in the waters off Vietnam (so-called “blue water” navy veterans) experienced a comparable range of exposures to Agent Orange as the veterans who served on boats or ships that operated on the inland waterways and delta areas of Vietnam (“brown water” navy veterans), and those on the ground in Vietnam. The IOM report is expected to be released sometime in 2011.⁵¹

⁴² *Haas v. Peake*, 525 F.3d 1168 (Fed. Cir. 2008).

⁴³ Ibid., p. 1197.

⁴⁴ Ibid.

⁴⁵ No. 2007-7037.

⁴⁶ 544 F.3d 1306 (Fed. Cir. 2008).

⁴⁷ 38 U.S.C. § 7292(c). A petition for certiorari is a request for the Supreme Court to review the decision of the lower court. See <http://www.techlawjournal.com/glossary/legal/certiorari.htm>.

⁴⁸ 129 S.Ct. 1002 (2009). This action had the effect of affirming the decision of the Court of Appeals which had previously reversed the decision of the CAVC.

⁴⁹ 22 Vet. App. 385; 2009 U.S. App. Vet. Claims LEXIS 315 (2009).

⁵⁰ As a result of the various judicial decisions, Haas is not able to use the “agent orange presumption” in proving his claim. Rather, he must prove his claim through factual and medical evidence.

⁵¹ More details about this project is available at <http://www8.nationalacademies.org/cp/projectview.aspx?key=49201>.

Proposed Legislation to Clarify Service in Vietnam

Representative Bob Filner, the Chairman of the House Veterans' Affairs Committee, has introduced the Agent Orange Equity Act of 2009 (H.R. 2254). This legislation, if enacted, would clarify service in Vietnam to include inland waterways, the waters offshore, and airspace above Vietnam during the period beginning on January 9, 1962, and ending on May 7, 1975. Under H.R. 2254, those who have been awarded the Vietnam Service Medal or the Vietnam Campaign Medal and those veterans who served on Johnston Island during the period beginning on April 1, 1972, and ending on September 30, 1977, would also be eligible for disability compensation based on presumptive disease conditions relating to exposure to Agent Orange.

Epidemiologic Research on Vietnam Veterans

Because of the controversy surrounding the use of herbicides in Vietnam, significant research on the health effects of Agent Orange and dioxin exposure has occurred over the last 30 years. The majority of studies have focused on morbidity and mortality of Vietnam veterans and are conducted by the VA, the Centers for Disease Control and Prevention (CDC), the U.S. Air Force, and the various veteran service organizations (VSOs). Despite the abundance of research completed, epidemiologic studies on Agent Orange are historically burdened by the lack of reliable exposure data. The lack of accurate data remains a continued source of frustration for researchers, government officials, and Vietnam-era veterans seeking conclusive information on the health risks of exposure to Agent Orange. Below is a brief description of epidemiologic research conducted by the various agencies.

Centers for Disease Control and Prevention

In 1979, the VA was authorized to conduct an epidemiologic study to determine the association between Agent Orange and the medical concerns of Vietnam-era veterans. In carrying out the congressional mandate, the VA was faced with substantial challenges in determining study design and research protocol, and in 1982, responsibility for the research was transferred from the VA to the CDC. The CDC also faced its own obstacles in research design and were delayed by the lack of exposure data. In response to the difficulty in obtaining exposure data, the CDC attempted an Agent Orange Validation Study to see if indirect estimates of exposure from military records and self-reports could be compared to dioxin serum levels in veterans as a method of determining true exposure. After investigation, the CDC reported that military records and self-reports obtained from the Agent Orange Validation Study were inadequate for identifying the exposed individuals necessary for a large epidemiologic study of dioxin effects. Secondary to the problems faced by the VA and the CDC, a group of government panels and advisory boards determined that the congressionally mandated Agent Orange Study was improbable, and the CDC investigation ended.⁵²

⁵² The government panel and advisory groups included the CDC advisory group, the Science Panel of the Domestic Policy Council's Agent Orange Working Group, and the Agent Orange Advisory Panel of the Congressional Office of Technology Assessment.

Air Force Health Study (AFHS)

Operation Ranch Hand was responsible for spraying herbicides in Vietnam between 1962 and 1971. In 1982, Air Force investigators began a study investigating the long-term health problems of pilots and ground crews engaged in spraying herbicides in Vietnam. The study cohort consisted of more than 1,200 Ranch Hand (the unit responsible for aerially spraying herbicides in Vietnam) veterans and more than 19,000 comparison Air Force veterans who did not spray herbicides. AFHS data collected between 1979 and 1993 revealed no statistically significant differences between the Ranch Hand personnel and the comparison cohort both for all-cause mortality and for cause-specific mortality. The exception was an increased mortality rate for circulatory diseases seen in enlisted ground crew personnel, a group at higher risk for skin exposure to herbicides. In 2005, an AFHS update reviewing 20 years of epidemiologic data on mortality rates reported a small, but significant, increase in all-cause death rates for Ranch Hand veterans.⁵³ After 20 years of analysis, data collection, and review, a recent IOM publication indicated that diabetes presented as the most serious health problem observed in the AFHS. Type II diabetes was added to the list of service-connected diseases for Vietnam veterans exposed to Agent Orange in 2001.⁵⁴ The long-standing AFHS ended on September 30, 2006.

Section 714 of the John Warner National Defense Authorization Act, 2007 (P.L. 109-364), required the Secretary of the Air Force to transfer custody of the AFHS data to the Medical Follow-Up Agency (an agency under the IOM's Board of Military and Veterans Health). This decision to retain the AFHS materials was based on the scientific merit of maintaining herbicide exposure records as a valuable source of medical and epidemiologic data as recommended by the IOM study.⁵⁵ Furthermore, P.L. 109-364 required the Secretary of Defense to make \$850,000 available to the Air Force in preparation for the transfer of study data to the IOM. An additional \$200,000 was to be reimbursed from the DOD to the IOM for costs related to the transfer of study materials from the Air Force.⁵⁶

The Veterans' Benefits Improvement Act of 2008 (P.L. 110-389) authorized the Medical Follow-Up Agency at its discretion to conduct additional research on the assets transferred to the Agency from the AFHS. The Veterans' Benefits Improvement Act of 2008 also authorized \$1.2 million for each fiscal year for the maintenance, management, and operation of the assets transferred, and \$250,000 for each fiscal year for the conduct of additional research. These activities would be funded by the VA and are authorized through September 30, 2012. Moreover, P.L. 110-389 requires the Medical Follow-Up Agency to submit a report to Congress assessing the feasibility and advisability of conducting additional research on the AFHS after September 30, 2012.

⁵³ Norma Ketchum and Joel Michalek, "Postservice Mortality of Air Force Veterans Occupationally Exposed to Herbicides During the Vietnam War: 20-year follow-up results," *Military Medicine*, vol. 170, no. 5 (May 2005), pp. 406-413.

⁵⁴ National Academies, Institute of Medicine, *Disposition of the Air Force Health Study*, 2006, p. 55., and see U.S. Department of Veterans Affairs , "Disease Associated With Exposure to Certain Herbicide Agents: Type 2 Diabetes," 66 *Federal Register* 2376, January 11, 2001.

⁵⁵ *Ibid.*, p. 4.

⁵⁶ U.S. Congress, Conference Committees, *National Defense Authorization Act for Fiscal Year 2007*, a report to accompany H.R. 5122, 109th Congress, 2nd sess., H.Rept. 109-702. *Congressional Record*, daily edition, vol. 152 (September 29, 2006), pp. H8061-H8536.

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